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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,729	03/29/2001	Hironori Yahagi	826.1721	4351
21171	7590	03/29/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			HONEYCUTT, KRISTINA B	
			ART UNIT	PAPER NUMBER
			2178	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,729

Applicant(s)

YAHAGI, HIRONORI

Examiner

Kristina B. Honeycutt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on December 30, 2004.

This action is made Final.

2. In the amendment, claims 1-13 are pending in the case. Claims 1, 3, 9, 10, 11, 12 and 13 are independent claims.

Specification

3. The objection to the disclosure for containing embedded hyperlinks has been withdrawn as necessitated by the amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Abulleil et al. (U.S. Pub. No. 20010027455; publication date October 4, 2001; filed April 10, 2001; continuation filed August 21, 1998).

Regarding independent claim 12, Abulleil discloses a method compressing a hierarchically structured document, comprising:

- analyzing a hierarchy of the hierarchically structured document (p.9, para. 89; p.10, para. 95 – as demonstrated in the cited text, a hierarchy is analyzed); and
- combining hierarchical elements of the hierarchically structured document responsive to common element names for the hierarchical elements and a common child element structure of the hierarchical elements (p.9, para. 90 – as demonstrated in the cited text, elements with common names and structures are combined).

Regarding independent claim 13, Abulleil discloses a method compressing a hierarchically structured document, comprising:

- analyzing a hierarchy of the hierarchically structured document (p.9, para. 89; p.10, para. 95 – as demonstrated in the cited text, a hierarchy is analyzed); and
- combining hierarchical elements of the hierarchically structured document responsive to common features of parts of a hierarchy common of the hierarchically structured document (p.9, para. 90 – as demonstrated in the cited text, elements with common features are combined).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose et al. (U.S. Patent 6105044; date of patent 6105044; filed July 13, 1999) in view of Li (U.S. Patent 6647141; date of patent November 11, 2003; filed November 18, 1999).

Regarding independent claim 1, DeRose discloses a document inputting device inputting information of a structured document that is written with a set of hierarchical elements, and composed of a plurality of records each including one element or more (col. 7, lines 60-67; col. 8, lines 1-6).

DeRose also discloses a joining device generating a new element by joining contents of elements relatively at a same position among two records or more of the structured document (Figures 3 & 6; col. 12, lines 24-54; col. 18, lines 33-55).

DeRose also discloses a generating device generating a new record that includes the new element and inherits a relative position relationship of elements in the two records or more (Figures 3 & 6; col. 11, lines 10-46).

DeRose also discloses a document outputting device outputting the structured document after being converted (col. 17, lines 56-58; col. 18, lines 44-55).

DeRose discloses a converting device converting the structured document by replacing the two records or more with the new record (col. 18, lines 44-55) but does not teach decreasing the number of hierarchical elements of the structured document. Li discloses decreasing the number of elements (col. 11, lines 2-6). It would have been obvious to one of ordinary skill in the art, having the teachings of DeRose and Li before him at the time the invention was made, to modify a converting device taught by DeRose to include decreasing the number of elements as taught by Li, because joining elements decreases the number of elements present, as taught by Li (col. 11, lines 2-6) which would save resources and time when users are accessing the document and tree.

Regarding dependent claim 2, DeRose discloses the converting apparatus according to claim 1 further comprising:

- a key inputting device inputting a search key (col. 13, lines 34-37; col. 15, lines 29-35 – as demonstrated in the cited text, a “key inputting device” inputs a search “key”);

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- searching device searching the structured document after being converted with the search key, extracting a character string corresponding to a position of a detected character string from contents of an element in a certain record when the character string corresponding to the search key is detected from contents of another element in the certain record, restoring a record before being converted, which includes the search key, from the detected character string and the extracted character string, and outputting the restored record as a search result (col. 13, lines 34-37, 47-67; col. 14, lines 1-48; col. 17, lines 60-62 – as demonstrated in the cited text, a “searching device” searches the “converted” document, extracts a character string corresponding to a position of a detected character string from contents of an element in a “record” when the character string corresponding to the search “key” is detected from contents of another element in the “record”, restores a “record” before being “converted” from the detected character string and the extracted character string, and outputting the restored “record as a search result”).

Regarding independent claim 9, the claim reflects the process of generating a new element, a new record and converting the document as claimed in claim 1 and is rejected along the same rationale.

Regarding independent claim 10, the claim reflects the program causing the computer to perform generating a new element, a new record and converting the document as claimed in claim 1 and is rejected along the same rationale.

Regarding independent claim 11, the claim reflects a converting apparatus inputting a document, generating a new element and a new record, converting the document and outputting the document as claimed in claim 1 and is rejected along the same rationale.

6. Claims 3-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose in view of Li in further view of Ardoin et al. (U.S. Pub. No. 20020099684).

Regarding independent claim 3, DeRose discloses a “document inputting device” inputting information of a structured document written with set of hierarchical elements (col. 7, lines 60-67; col. 8, lines 1-6).

DeRose further discloses a “storing device” storing the information of the structured document (col. 7, lines 22-26).

DeRose further discloses a “joining device” generating a plurality of new elements by joining, as “synthesis targets,” content of each element included in a “first combination” of elements that successively exist side by side in a level immediately below a certain element and have a same element name, and content of each element included in a “second combination” of elements that have a same element name in a certain level lower than the elements of the first combination, elements in each level on a “route” from the elements of the “first combination” to the certain level having a same

element name, in the structured document (Figures 3 & 6; col. 12, lines 24-54; col. 15, lines 20-24; col. 16, lines 45-56; col. 18, lines 33-55; col. 21, lines 6-10).

DeRose further discloses a “generating device” generating a “synthesized substructure” that includes the plurality of new elements, and inherits a “relative position relationship” of original elements among the plurality of new elements (Figures 3 & 6; col. 11, lines 10-46).

DeRose further discloses a “deleting device” deleting an unnecessary original Element (col. 10, lines 9-16).

DeRose further discloses a “document outputting device” outputting the structured document of the “synthetic type” (col. 17, lines 56-58; col. 18, lines 44-55).

DeRose discloses a converting device converting the structured document into a structured document of a synthetic type configured by a synthesized substructure by using said joining device, said generating device, said duplicating device and said deleting device (col. 18, lines 44-55) but does not teach decreasing the number of hierarchical elements of the structured document. Li discloses decreasing the number of elements (col. 11, lines 2-6). It would have been obvious to one of ordinary skill in the art, having the teachings of DeRose and Li before him at the time the invention was made, to modify a converting device taught by DeRose to include decreasing the number of elements as taught by Li, because joining elements decreases the number of elements present, as taught by Li (col. 11, lines 2-6) which would save resources and time when users are accessing the document and tree.

DeRose does not teach a duplicating device generating a duplication of an unjoined element below a new element included in a synthesized substructure generated from an element higher than the unjoined element. Ardoin discloses a “duplicating device” generating a “duplication” of an element below another element included in a “structure” (p.36, para. 573). It would have been obvious to one of ordinary skill in the art, having the teachings of DeRose and Ardoin before him at the time the invention was made, to modify a converting apparatus taught by DeRose to include generating a duplication of an element as taught by Ardoin, because generating a duplicate unjoined element would allow for two copies of the same element so that if changes are made to one, such as joining it with another element, the original element would still be available if needed.

Regarding dependent claim 4, DeRose discloses “generating device” generates the “synthesized substructure” if a combination of elements that successively exist side by side and have a same element name in two levels or more on the “route” to the certain level is not found (col. 11, lines 43-62).

Regarding dependent claim 6, DeRose discloses “joining device” generates contents of the new elements by inserting a delimiter between the two “joined” contents (col. 11, lines 43-49).

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Regarding dependent claim 7, DeRose discloses “joining device consecutively” inserts the delimiter in the contents of new elements if content of an element which becomes the “synthesis target” is “lacking” (col. 10, lines 65-67; col. 11, line 1).

Regarding dependent claim 8, DeRose discloses a “key inputting device” inputting a search “key” (col. 13, lines 34-37; col. 15, lines 29-35).

DeRose further discloses a searching device comparing a character string between two delimiters, which is included in contents of elements within the structured document of the synthetic type, with a character string of the search key, obtaining an order of a delimiter preceding a character string corresponding to the search key when the character string corresponding to the search key is detected from contents of elements within a certain synthesized substructure, extracting a character string between a delimiter corresponding to the order and a next delimiter in contents of another element in the certain synthesized substructure, restoring a corresponding portion of the structured document before being converted from the detected character string and the extracted character string, and outputting the restored portion as a search result (col. 13, lines 34-37, 47-67; col. 14, lines 1-48; col. 18, lines 60-62).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose in view of Li in further view of Ardoin in further in view of Alam et al. (U.S. Patent 6336124).

Regarding dependent claim 5, DeRose does not teach joining device divides the second combination of the elements into a plurality of groups each composed of a predetermined number of elements, and specifies the synthesis targets based on the predetermined number of elements included in each of the groups. Alam discloses "joining device" divides combinations into a plurality of groups composed of a "predetermined number of elements" (col. 15, lines 56-67; col. 16, lines 1-14). It would have been obvious to one of ordinary skill in the art, having the teachings of DeRose and Alam before him at the time the invention was made, to modify a converting apparatus taught by DeRose to include dividing the combination of the elements into a plurality of groups each composed of a predetermined number of elements as taught by Alam, because elements would be divided so that the element could be displayed within the display parameter, as taught by Alam (col. 15, lines 65-67; col. 16, lines 1-3). It would have been advantageous to one of ordinary skill to utilize such combination because the element would be displayed in its entirety upon division so that the user would not have to scroll in order to see the whole element.

Response to Arguments

8. Applicant's arguments filed December 30, 2004 have been fully considered but they are not persuasive. Regarding claim 1, Applicants indicate the present invention is designed to compress a structured document and this is not taught by DeRose (p.7, lines 23-25). The Examiner disagrees because decreasing the number of elements was

not originally claimed and DeRose does disclose the original claim. In light of the amended claim with the addition of decreasing the number of elements, Li teaches decreasing the number of elements when elements are joined (col. 11, lines 2-6). In other words, DeRose teaches a converting apparatus as cited above in the rejection and Li teaches decreasing the number of elements when elements are joined.

Claims 3, 9, 10 and 11 emphasize the decreased number of elements and are rejected at least based on the rationale of the rejection above.

Claims 2 and 4-8 depend from independent claims 1 and 3. Therefore claims 2 and 4-8 are rejected at least based on the rationale of the rejection above.

Regarding claims 12 and 13, Abulleil teaches compressing a document by combining elements responsive to common features (p.9, para. 89, 90; p.10, para. 95).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Method of clustering electronic documents in response to a search query. (U.S. Patent 6167397),
- Method for generating a software module from multiple software modules based on extraction and composition (U.S. Patent 6757887).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristina B. Honeycutt whose telephone number is 571-272-4123. The examiner can normally be reached on 8-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 703-308-5465. The fax phone number for the organization where this application or proceeding is assigned is 571-272-4124.

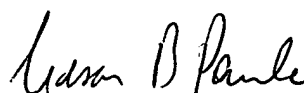
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KBH


CESAR PAULA
PRIMARY EXAMINER